



# SMART STATIONS IN SMART CITIES

6<sup>th</sup> International Conference on Railway Stations

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## NODO "S": Stations as nodes of Sustainability and Responsibility

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Parallel Session: 2b Innovative Management

UNDER THE HIGH PATRONAGE OF

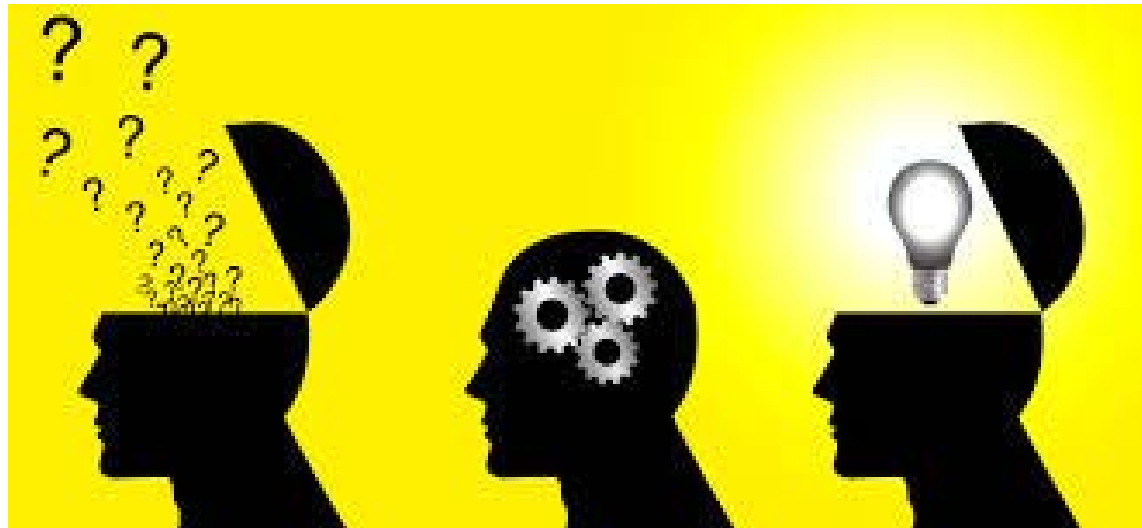


ORGANISERS





# smart? intelligence?



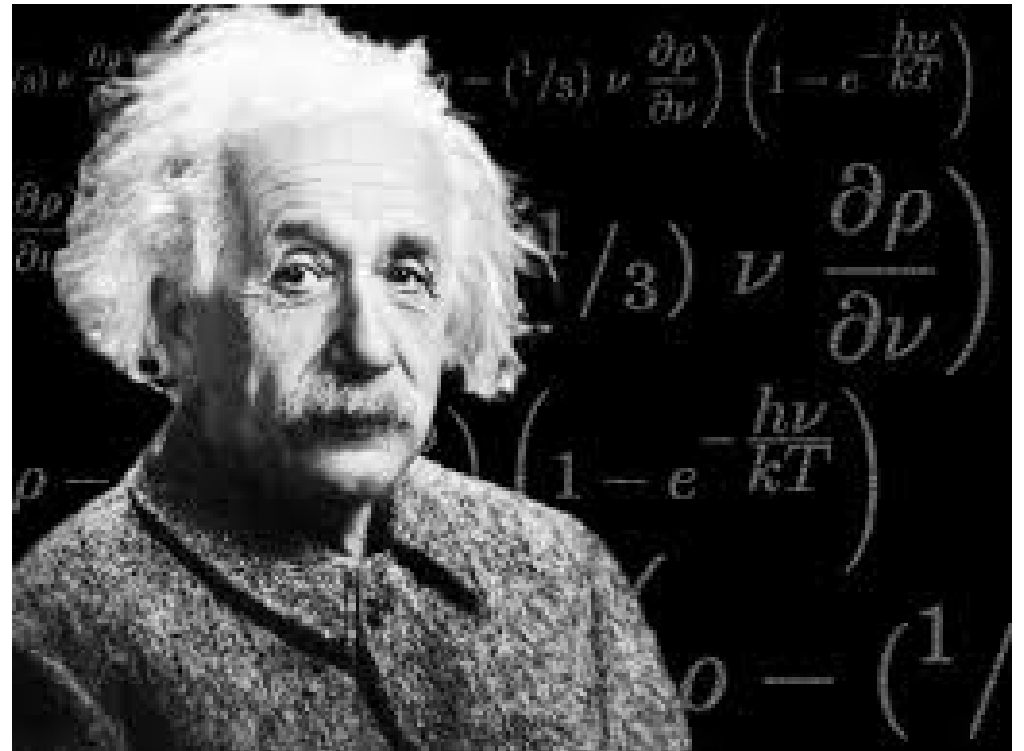
Del lat. intelligentia.

1. f. Ability to understand or **comprehend**.
2. f. Ability to **solve problems**.
3. f. Knowledge, comprehension, act of understanding.
4. f. Meaning in which an expression can be taken.
5. f. **Skill**, capacity and experience.

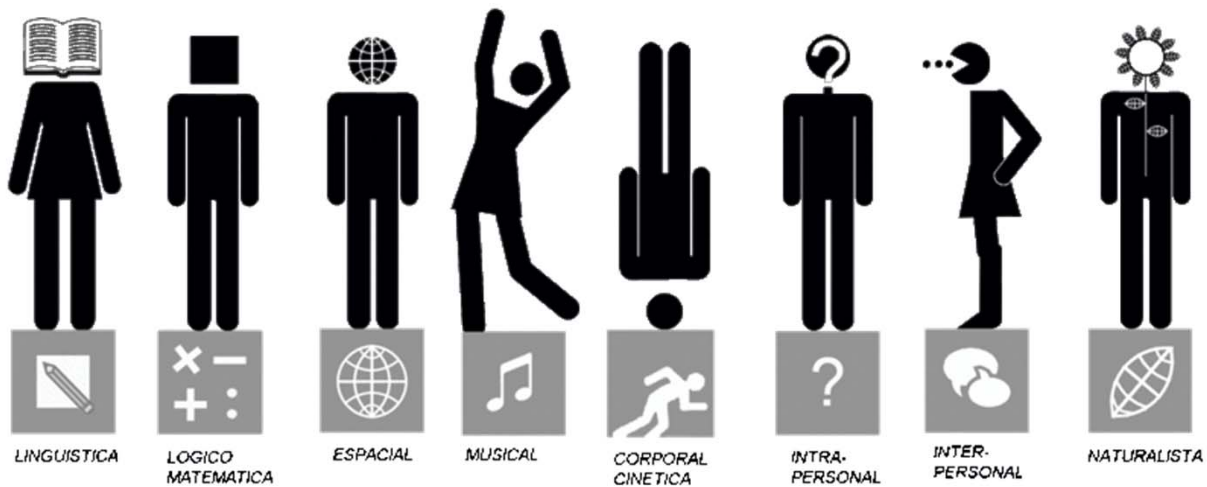
# Data

# Connections

# Decisions



# “intelligence”



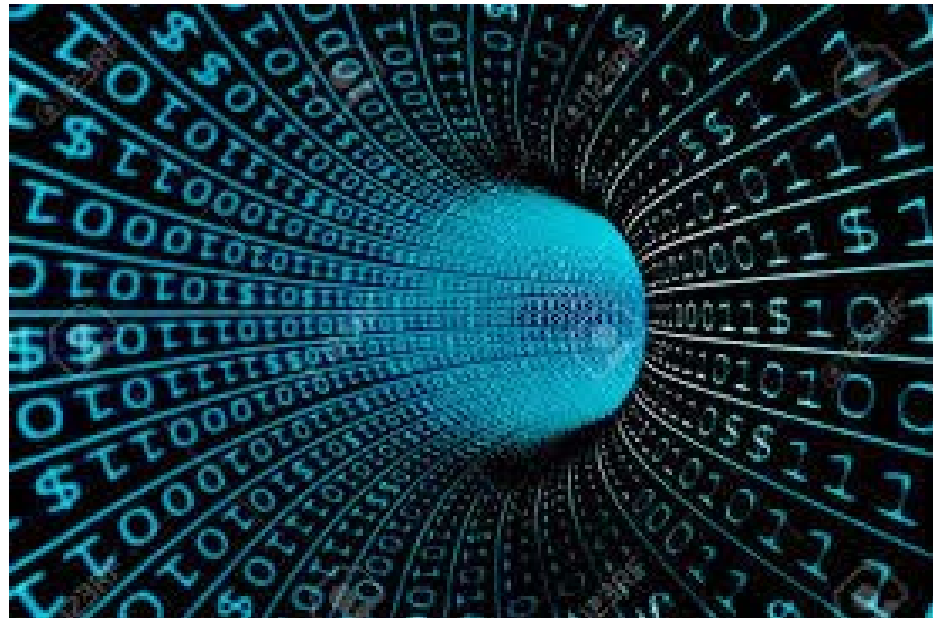
# And the stations?

# what is a smart station?





**Technology**  
**Digitalisation**  
**Hyperconnection**  
**Quickness**



# ITC yes, but, for what...?

**“  
We need to give purpose to  
digital revolution”**

**Ellen MacArthur Foundation**

# ITC for .....

**faster**  
**more efficiency**  
**better service**

# it`s enough?

# NO

Del lat. intelligentia.

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# Purpose:

*“respond to the **challenges** of our business and consumption model, our mobility challenges, our social and environmental challenges”.*



# SUSTAINABLE DEVELOPMENT GOALS



Because the intelligence is completely useless if it's not at the service of.....

## **Resolve problems To face challenges**

It's completely useless if it doesn't help us be happier.



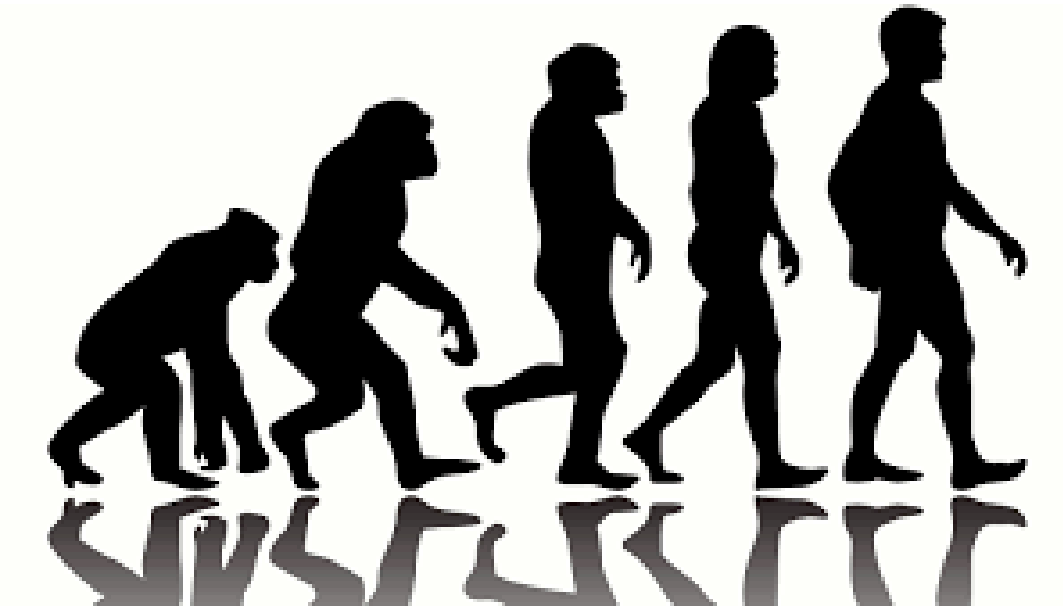
*The station as a  
“social actor”*

## **PROBLEMS / CHALLENGES** OF CITIES AND COUNTRIES:

- ✓ Consumption of natural resources
- ✓ Air pollution and Climate Change
- ✓ Social gap in the cities and between cities
- ✓ Need for dialogue, coexistence, culture, ...

Convert stations into social transformation agents

**how?**



*Evolution of  
Stations*

TRADITIONAL STATION

FUTURE STATION

*Transport node*



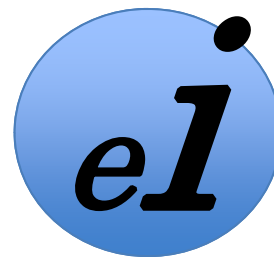
*Integrated transport node in cities*



*Integrated and digitized transport node*



*Integrated transport node, digitized, and SUSTAINABLE*



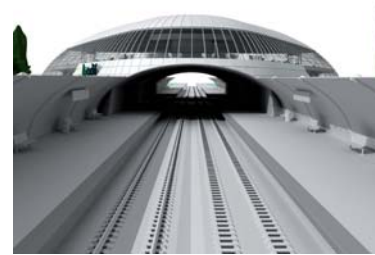
***There can be no intelligence if we don't put the technology at the service of an integrative and respectful development with the planet***



# STATION AS NODE S



**Functionality**  
**Security**  
**Design**  
**Service**  
**Cost**



**Social Connection**  
**Economic Revitalization**  
**Environmental Commitment**  
**Digitalisation**

# STATION AS NODE **S**

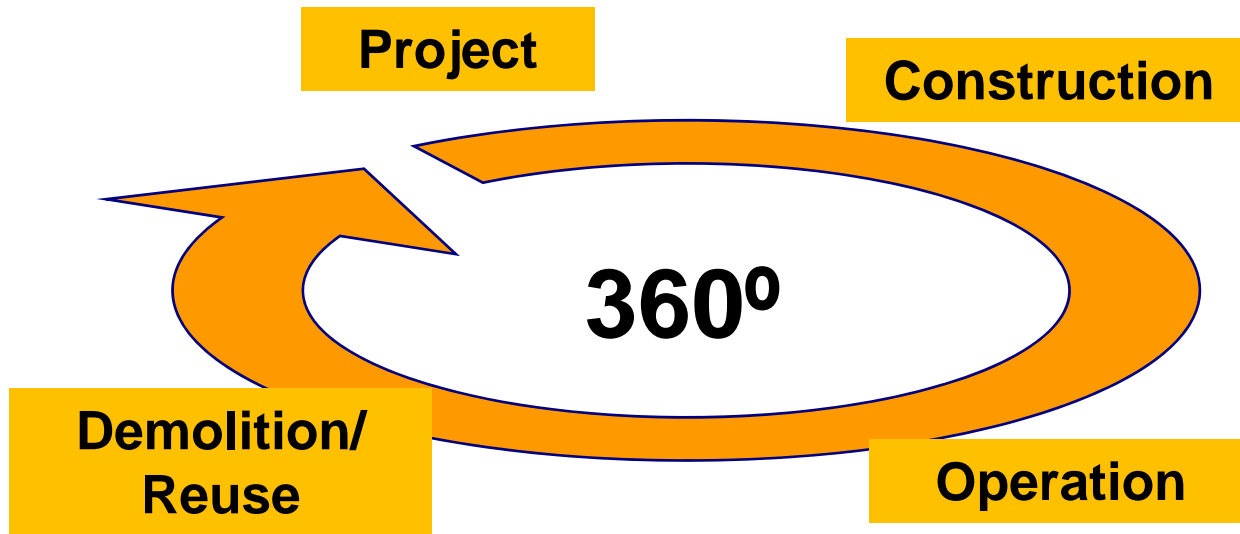


**360°**

**Social Connection  
Economic Revitalization  
Environmental Commitment**

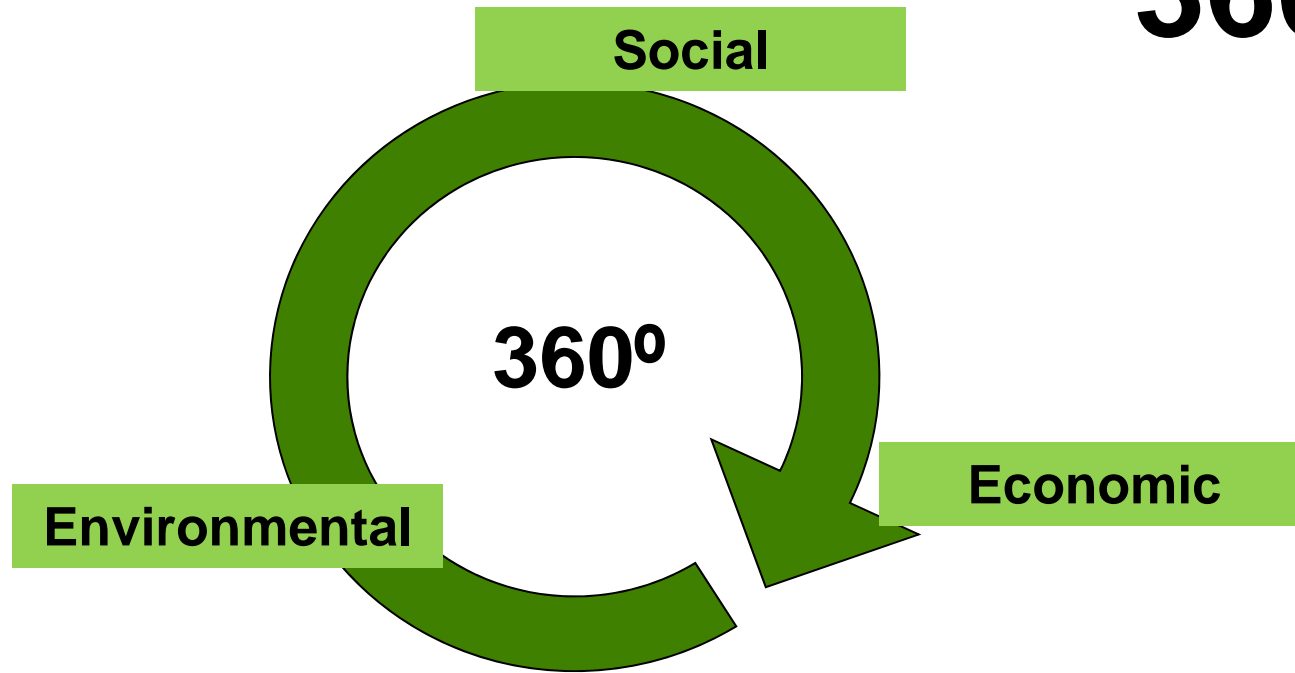
# STATION AS NODE **S**

# 360°



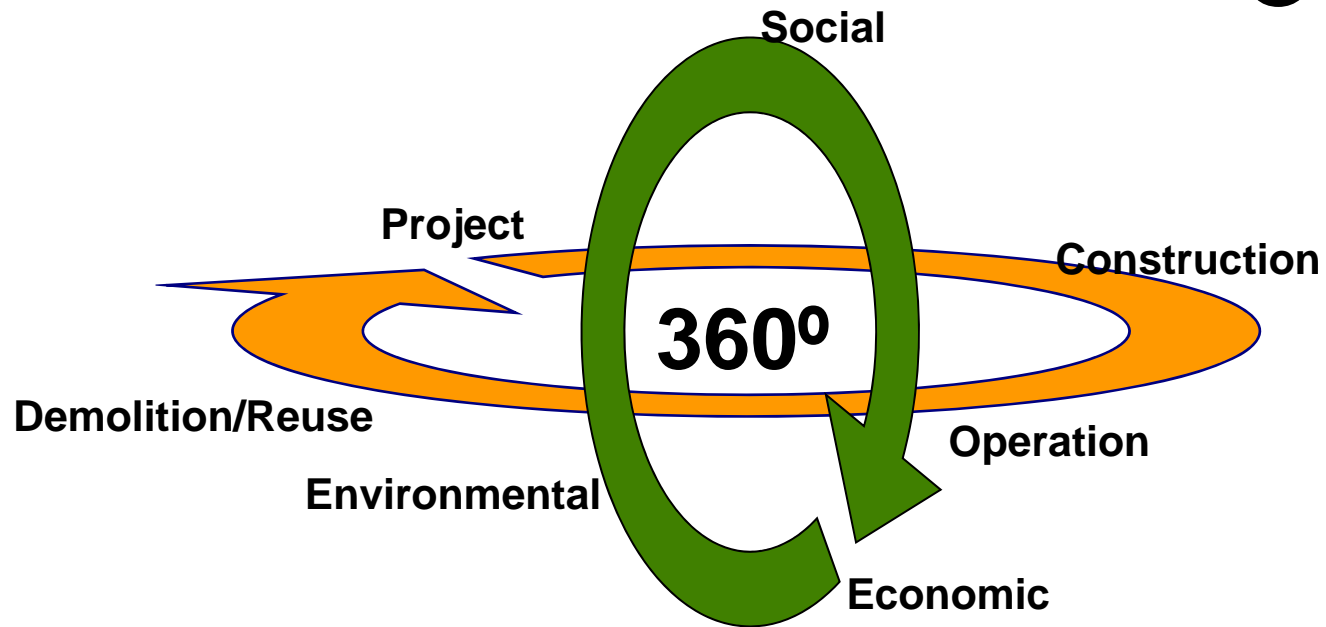
# STATION AS NODE **S**

360°



# STATION AS NODE **S**

# 360°



## ADIF & ADIF-HS: PROJECTS STATIONS AS NODE S:

- SOCIAL INCLUSION: **Dialogue Project**
- CULTURE AND VALUES: **Open Station Program**
- SUSTAINABLE MOBILITY: **Last Green Mile Area**
- SUSTAINABLE BUILDING: **360° Sustainable Station Handbook**
- CITY AND EFFICIENCY CONNECTION: **P.D. Digitized Stations**
- CIRCULAR ECONOMY: **“Recovery of Assets in Disuse” Program**

2016 DATA

# Open Station Program (2007-2016)

- ✓ Values
- ✓ Education
- ✓ Culture



# Open Station Program



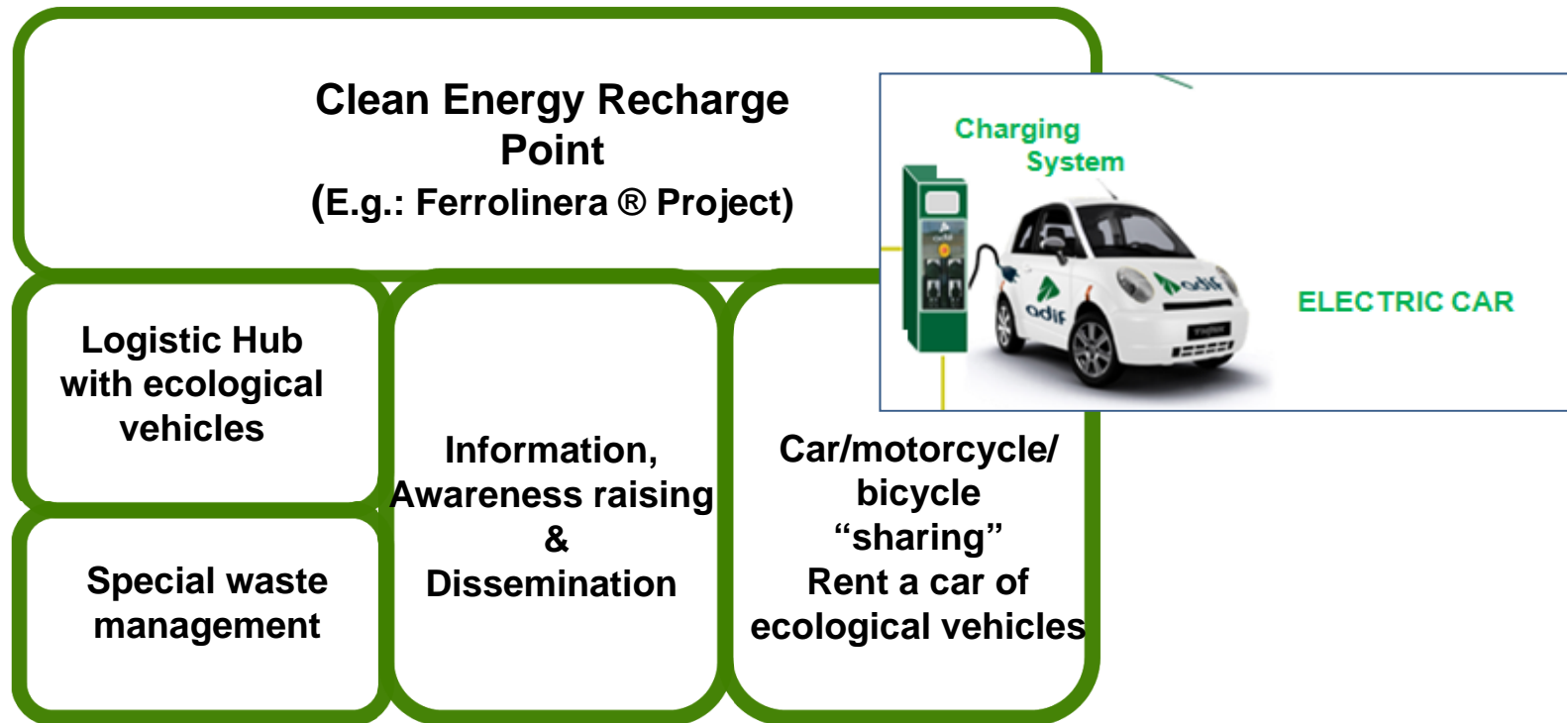


# Last Green Mile Area

Sustainable Mobility: “door-to-door zero emissions”



# Last Green Mile Area



## “Recovery of Assets in Disuse” Program

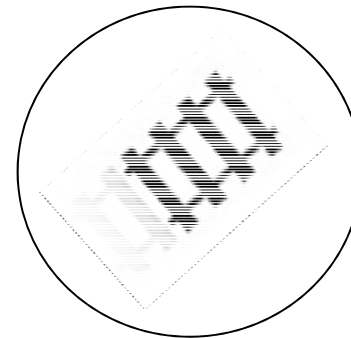


**> 500 Buildings**

Old stations

Building with no declare use  
(Workshops, Docks, Ships, etc.)

Stations with unused buildings

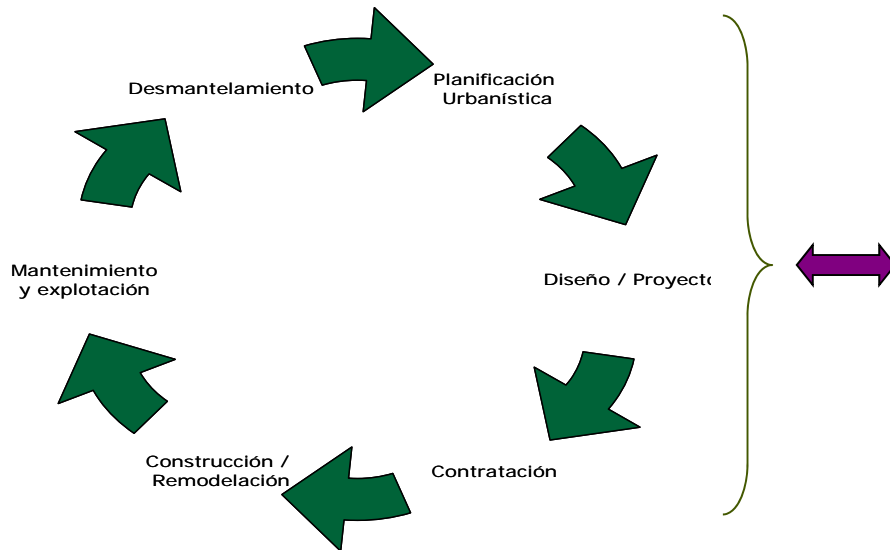


**4.763 kilometers of  
tracks**



# 360° Sustainable Station Handbook

## Phases

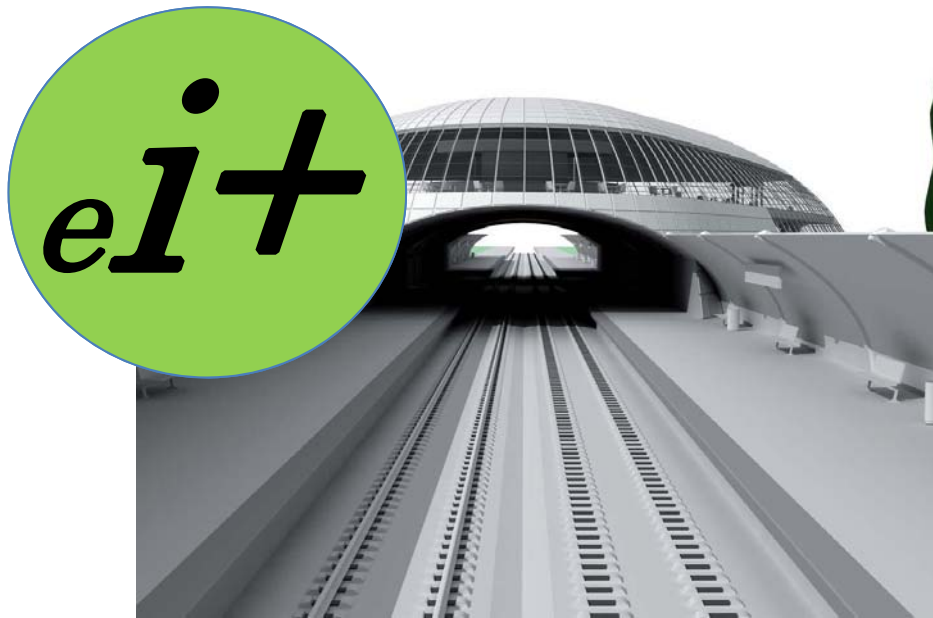


## Areas of action

- Contracting suppliers
- Accesibility
- Dialogue with citizens
- Cultural & Awareness activities
- Location and sustainable architecture
- Energy
- Waste management
- Impact on the environment
- Water management
- Materials
- Atmosphere and noise
- Work environment

**46 Sheets**

# STATIONS AS NODES

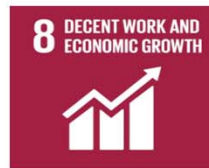


*Acting from Corporate  
Responsability (CSR)*

*To contribute to a more  
sustainable  
development model*

# SUSTAINABLE DEVELOPMENT GOALS

## 12 ODS



# Smart Living







THANK YOU  
GRACIAS

UNDER THE HIGH PATRONAGE OF



ORGANISERS

